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Students perception of Service Quality at University of Chester Seaborne Library

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of Chester for the degree of Master of Business Administration**

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Abstract

Delivering high levels of service is becoming increasingly important in a number of settings, particularly if an organisation is facing increased competition. This report examines the issue of how service quality can be assessed and delivered within the context of a library setting. It achieves this by examining the literature regarding service quality measurement and delivery. It then implements a modified version of the SERVQUAL / libQUAL+ instrument in order to identify the levels of service quality being delivered in specific library - the University of Chester Seaborne library. From this, conclusions are made regarding the suitability of the modified instrument for service quality measurement, and the particular service issues that University of Chester Seaborne library faces. The report concludes by making recommendations for service improvement, based on the findings of the literature review.

Declaration

This work is original and has not been previously submitted in support of a degree, qualification or other course.

Signed

Date.....

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1.0 Introduction

1.1 Background and Justification to the Research Topic

The modern library faces a number of challenges today. For years libraries have operated as part of the public sector, and have been subject to public sector thinking. This has resulted in institutions that operate within a 'bubble'; they have been marked by inefficiency and non-market thinking (Vitaliano, 1997). Libraries view those who use them as 'service users' rather than customers, and systems are often antiquated or insufficient. Libraries have arguably existed in a time-wrap, and remained under the radar for many years. However, more recently there has been increasing awareness of the ineffectiveness of this institution, and change is being demanded. This demand is partly influenced by the fact that governments are being increasingly required to be accountable for public spending, and this has put pressure on many services to ensure that they offer 'value for money' to the taxpayer by providing relevant services (Evans and Zarnosky, 2000). This requirement to provide a service that is 'relevant' to modern users is perhaps most acutely demonstrated by the example of Westminster council, whose head of communications has stated that libraries need to change their perceived image by using attractive librarians in marketing materials. (LondonEveningStandard.com, 2006). The Head of Communications stated that He states that "From racy books to photogenic librarians and new services that counter outdated perceptions, media is a powerful tool to shape image." These efforts clearly indicate the perception that government provided libraries clearly need to re-direct their efforts and produce a service that is more relevant to today's user, thereby making them accountable to the taxpayers who fund them.

Of course, this requirement of accountability does not only extend to council provided libraries, but also those provided by academic institutions. Universities are accountable to their students and fee payers, and if they fail to offer accountability then there is a high risk that students and fee payers will take their 'business' elsewhere. The competition to gain students means that universities must ensure that all of their facilities operate in a user-led fashion and remain competitive with other universities.

Furthermore, Cullen (2001) identifies that competition not only comes from other libraries, but also from other information sources. Modern technology has increasingly diversified the ways in which people can access data and information. As a result, libraries no longer maintain the monopoly on information storage, and people are increasingly turning to other formats for their information needs. This increase in competition means that libraries are no longer able to exist in a 'bubble' of secure funding and zero accountability. Instead, they are driven by market forces, and must structure their operations accordingly.

Traditionally, this competition may have occurred through the provision of a larger collection. However, it is being increasingly recognised that competing on size alone is not only insufficient, but also inefficient. Often, libraries contain all the desired sources that users want, and therefore to expand the range would simply be a waste of resources. Instead, what users need from libraries is improved ways to gain access to the resources that are already contained within. One of the key ways in which libraries can compete with other information sources is through the provision of high level customer service.

For this reason, there is a key need to identify the provision of service quality in the library setting. Without research in this area, there is a risk that libraries will fall behind external competitors, and a vital social and educational resource will be lost.

1.2 Research Question and Methodology Overview

This increasing awareness of the need for customer excellence in libraries therefore raises a number of questions. These relate the precise nature of customer service, methods that libraries can use to identify the existing quality of their customer service provision, and the ways in which customer service can be effectively delivered.

The aim of this dissertation is therefore threefold. It aims to identify:

- What the term 'customer service' means in the context of library services.
- How customer service quality can be effectively and accurately measured in Library services.
- How libraries can improve their service provision.

The dissertation aims to identify the answers to these issues in two settings; the general and the specific. The general issues of service definition, measurement and provision are identified within the literature review section of this dissertation. The identified concepts will then be applied in a specific library setting: University of Chester Seaborne library. The dissertation will apply findings from the 'measurement' section of the literature review in order to devise an instrument that can measure the provision of service quality in University of Chester Seaborne library. It will then examine the ways in which University of Chester Seaborne library can implement new policies and practices which increase this service quality and make it competitive with other relevant information providers.

The dissertation aims to forward a number of propositions. These are:

- Customer service quality can be defined by the existence of a 'service gap'.
- Measurement of this service gap can be achieved by measuring perception against 'expectation' or 'anticipation'. Although the literature generally uses the former, this dissertation submits that the latter generates a more accurate measurement.
- University of Chester Seaborne library's approach to service is currently underprovided, and this has resulted in the existence of a significant 'service gap'
- This service gap may be reduced through the introduction of (TQM) Total Quality Management principles.

1.3 Outline of the Chapters

The literature review aims to cover three areas; defining service quality, measuring service quality and delivering service quality. In the first section, it looks at various definitions of service quality that have been examined in the literature. Most notably, it identifies the 'service gap' definition, which is the definition of service quality that is then applied throughout the dissertation. The 'measuring service quality' section then examines measurement techniques that correspond with the 'service gap' definition of service quality. It identifies SERVQUAL as the central model that has been used in this

context, and also identifies the more specific libQUAL+, which constitutes a modified version of the SERVQUAL instrument for specific use in libraries. The literature review identifies and discusses the various deficiencies in both of these measurement techniques. These findings will go on to influence the proposed methodology that is used to gain insight into the level of service quality being delivered in University of Chester Seaborne library.

Finally, the literature review turns to methods that can be used to deliver service quality. This section focuses on an analysis of the Total Quality Management model, and the effect that this has on the provision of service quality according to the literature. These findings will strongly impact upon the 'recommendations' section, which will attempt to identify how the University of Chester Seaborne library can change their policies and practices in order to deliver higher levels of service quality.

The methodology section examines the way in which research is carried out. As well as identifying how the literature review was conducted, it also takes the findings of the second section of the literature review (section 2.2) and uses these as the basis for the creation of a measurement instrument. It creates a new hybrid model for service quality that identifies a difference between 'expectation' and 'anticipation'. It outlines the way in which this instrument will be used to conduct primary research with regard to the current standard of service quality in University of Chester Seaborne library, and discusses the sampling and confidentiality considerations that were relevant in the context of the research.

The findings section begins by examining the results of the primary research. The first aim of the data analysis is to prove the existence of a difference between 'anticipation' and 'expectation' when measuring service quality, and further it aims to identify which of these gives a more accurate measurement of service quality. It achieves this by comparing the 'expectation' and 'anticipation' values separately against the 'perception' value'. Having identified the importance of this distinction when devising measurement instruments, the dissertation moves on to identifying whether a service gap does exist in the University of Chester Seaborne library. This service gap is found to be significant. The findings section concludes by examining the processes that are used to provide

services within the library, and identifies the ways in which these processes may have contributed to low levels of service quality.

The recommendations section then takes the latter findings relating to processes, and uses the existing literature to suggest ways in which the library may alter its processes to improve service. Furthermore, the recommendations section addresses the need for the libQUAL+ model to be altered to accommodate 'anticipation' values rather 'expectation' or 'minimum expectation' values. Finally, the recommendations section turns inwards to identify ways in which the dissertation may have improved its research approach and findings.

2.0 Literature Review

2.1 Introduction

As outlined in the section before, the literature review aims to cover three separate but related topics. These are: the definition of service quality, the methods available to measure service quality, and the way in which service quality may be delivered. These are each addressed in turn. The last section of the literature review looks at the way service improvement methods (namely TQM) have actually been implemented in the library setting.

2.2 Defining Service Quality

When engaging in an investigation of the service quality offered by a particular organisation or institute, it is first important to ensure that a firm understanding of the term 'service quality' is gained. However, this task is not as simple as it may seem, and there have been many attempts to define the term, and the concept, more thoroughly (Wood and Brotherton, 2008).

A traditional approach to the concept of service quality has been to manage it against a set of pre-defined standards. For instance, service quality would be deemed to have been delivered if activities were completed within a certain timeframe, or if products complied with certain measurements or specifications. However, in the context of modern service, this approach is considered to be insufficient in truly identifying what

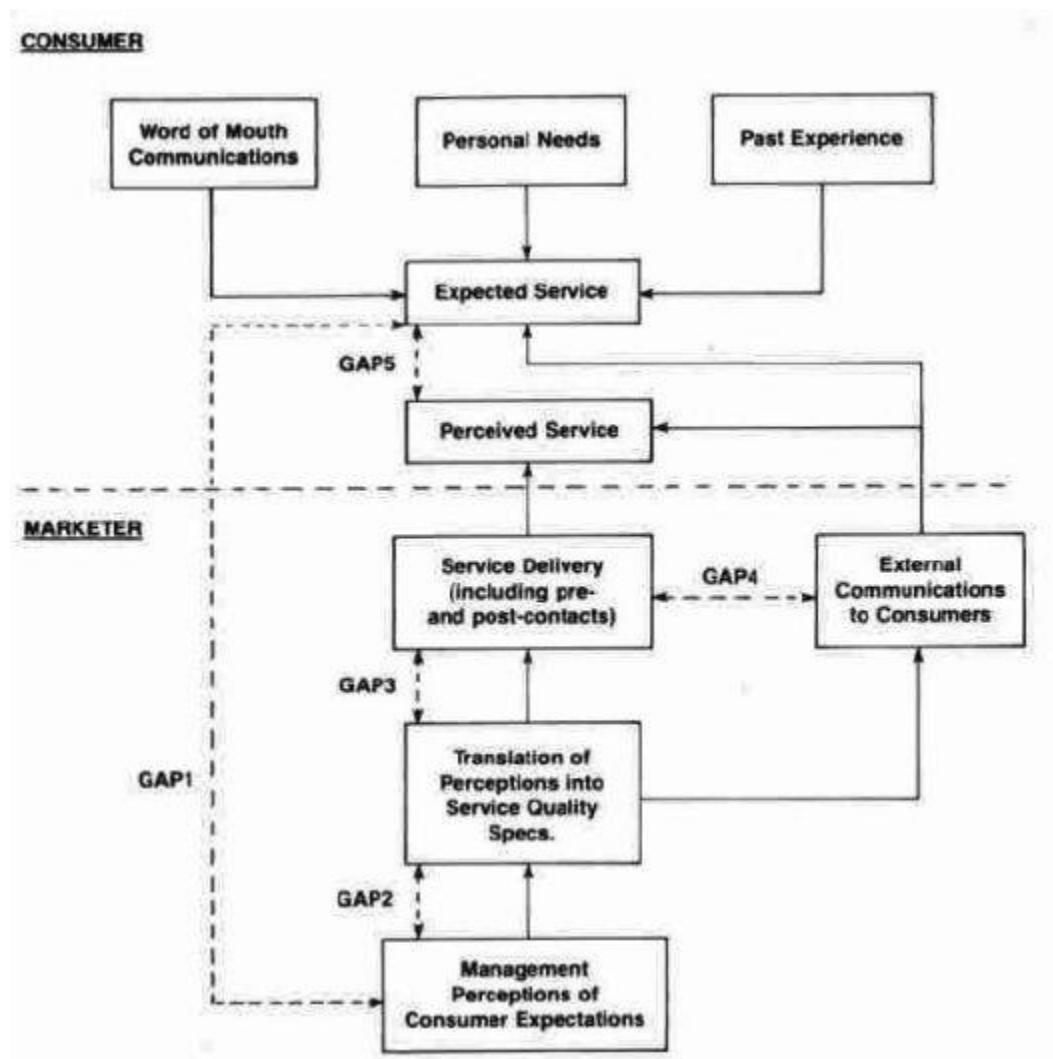
differentiates service experiences from one another, and what constitutes the 'quality' element of service. Reeves and Bednar (1994) state that this perception of quality as 'adherence to standards' may work in the context of goods, but is unsuitable in gaining an understanding of quality in service because much of the service experience is intangible. Furthermore, they state that one of the most common problems with the 'conformance to standards' model of service quality is that it is invariably defined by management. They argue that this therefore does not encapsulate service quality, because service quality is determined by the customer.

The view that service quality is defined by the customer rather than management is supported by a number of academics. For instance, Kandampully et al (2001) take the theory of 'customer defined quality' and extend it further. They state that customers do not hold a set of defined standards that must be met in order to identify quality in a given service experience. For instance, a customer does not hold a stopwatch in order to measure performance time, or measure the aesthetics of the setting against a pre-defined chart. Instead, what is relevant is their 'perception' of the experience. The authors identify that perception is an entirely subjective concept. It may change from day to day depending on external circumstances, and may indeed have little bearing on the reality of the service experience. Moreover, the perception is inextricably intertwined with the concept of 'expectation'. One experience may be perceived as possessing quality because expectations before the experience were low, whilst another service may deliver exactly the same objective level of quality, but still be *perceived* as offering a lower quality experience because the expectation of the experience was higher.

This concept of expectation and perception is often dubbed 'the customer service gap', and was initially identified by Parasuraman et al (1988). Service quality is identified by matching the perception of the experience as closely as possible to the expectation of the experience. The model that represents the occurrence of a service gap is presented below. Gap 5 refers to the overall service gap – the difference between perceptions and expectation. Gaps 1 – 4 relate to gaps between internal elements. For instance, Gap 1 refers to the gap between what a customer wants, and what the manager thinks the customer wants. Gap 2 is the failure to design systems that match customer expectations. Gap 3 occurs when the processes (people, technology) etc, fails to deliver a set standard, and gap 4 occurs when the company communicates a higher level of

service than it delivers. Parasuraman et al (1998) identify that when gaps 1 – 4 are reduced, gap 5 will also reduce. However, there are critics of the theory.

Figure 2.1 The Gap Model:



Reproduced from <http://www.servqual.estranky.cz/clanky/english/wahtisen>

The focus of the model is on gap 5 – between expectations and perceptions. This model for defining service quality is also supported by Grönroos (2007), though Grönroos

separates the 'marketer/producer' side of operations into the technical product that is being delivered (the what) and the way in which it is delivered (the how).

Cronin and Taylor (2002) argue that the models based on an expectation/perception gap are flawed because they focus on the issue of satisfaction, rather than attitude. They believe that expectations do not constitute an important aspect of the measurement of service quality, and thus their model has an exclusive focus on perceptions, beginning from a standard baseline of zero across the board.

It is argued that Parasuraman et al (1988) theory is more persuasive than that offered by Cronin and Taylor. Cronin and Taylor's theory accommodates the importance of perceptions, but it requires all businesses within a service field to deliver the same type and quantity of service in order to meet a required level of service perception. In the context of food service, this is the equivalent of stating that a fast food chain and a Michelin star restaurant must deliver similar levels of objective service in order to engender a similar perception of service to customers in each. Of course, this fails to reflect the reality of the way in which customers perceive service experiences. Customers develop different baselines from which they measure the service experience based on expectations of the experience; these expectations being based on previous experience, price, and subconscious indicators. This theory is persuasive because it explains the fact that many users and customers will find themselves to be more pleased with an objectively lower standard of service in differing settings.

However, despite the merits of the 'service gap model', it is argued that there are some failings. Many of these relate to the way in which Parasuraman et al propose that practical measurement of this gap occurs. The next section of the literature review will therefore address the methods of measurement that can be found within the literature.

2.3 Measuring Service Quality

The central models of service quality *measurement* are based upon the theories of what constitutes service quality. Therefore, the two central methods pertain to measuring the 'gap' in service (Parasuraman et al SERVQUAL model) and measuring the 'perception only' model proposed by Cronin and Taylor (SERVPERF). The latter model will be discussed only briefly, partly because the thinking underlying it has been dismissed in the section above, and partly because the SERVPERF model simply takes one part of the overall SERVQUAL model and uses this to identify service quality; therefore, in discussing the performance element of SERVQUAL the SERVPERF model is also being addressed.

2.3.1 SERVQUAL

In order to measure the 'service gap' of a particular enterprise, it was necessary to identify and categorise the elements of service that contribute to the overall service experience. Using focus groups, 97 different components of service quality were identified. To have used these would have created an unwieldy instrument of measurement, and as such the components were reduced to 22 elements spread across five distinct elements of service; reliability, assurance, empathy, tangibles and responsiveness (Williams and Buswell, 2003). Questions pertaining to each of these 22 elements were created, and the respondent was questioned about them twice; once in relation to their expectations regarding that particular element of service, and once regarding their actual perception of the service elements. In this way, the score gap between both responses could generate an indication of the service gap that occurred in relation to each service element, and in relation to the service experience overall. An example of the SERVQUAL instrument can be found in appendix 1.

Aside from criticism relating to the underpinning theory of the SERVQUAL model (i.e. arguments stating that expectation has no bearing on service quality), there are also some methodological and practical problems with the SERVQUAL instrument (Kandampully, Mok and Sparks, 2001).

Methodologically, the instruments fail to fully realise the true service gap because it fails to define the term 'expectation' clearly enough (Carrilat et al, 2007). Expectation may be widely or narrowly defined - it may either refer to the general expectations of service within the field, or the expectation of engaging with a particular business. Many SERVQUAL models are often phrased to target the former, with questions used phrases such as 'in an ideal restaurant' or 'in an ideal library'. However, this fails to fully address the way in which customers relate perception with expectation. Perceptions are likely to be partially influenced by expectations within the general service area, but they will also be influenced by their specific expectation of the service they are about to engage with (Carman, 1990). To return to the more common example of restaurant service, a customer may expect a high level of service from mid-range restaurants. However, when going out to dine at low-range restaurants their expectations may be low because the prices are cheap and they might have heard negative reviews from peers. When they leave the restaurant, they may claim that they were 'pleasantly surprised' by their experience. Their perception of the experience was higher because their expectation of the specific restaurant had been lower - indeed, the important element is arguably what customers *anticipate* from a particular experience, rather than what they expect within a service type. As such, SERVQUAL instruments that phrase questions in terms of general expectations may yield inaccurate gap scores because they are measuring perception against the wrong kind of expectation score.

A further problem with the instrument arises from the categorisation of service elements into the five different groups. Two central arguments can be found within the literature. The first is that there are not enough questions within each category (four or five in each) resulting in inconclusive analysis of each element, and the second is that the service elements are incorrectly grouped. Certainly, when the model is used outside of the hospitality industry (the field in which it was originally conceived), the groups become increasingly less applicable. Galiano and Hathcote (1994) therefore classified the elements of service quality into four groups, retaining tangibles and reliability, but replacing Parasuraman et al other groups with 'convenience' and 'personal attention'. They argue that these categories have a greater applicability over a range of different industries.

An extension of the debate regarding the correct classification of service elements relates to the weighting that said service elements should receive. Different authors have proposed that different service elements constitute the most important components of service. For instance, Zeithmal et al (1990) classify reliability as the most important component, whilst Fick and Richie (1991) cite tangibles and assurance as priorities in the minds of customers. Wood and Brotherton (1999) argue that the classification and weighting of service elements will often be dictated by the cultural background of the customer and the service, and criticise the Parasuraman model for taking an exclusively North American approach to service. Some studies have specifically adapted the SERVQUAL model in order to better suit the needs of their industry (for example, Calero et al, 2008). This has involved conducting further research groups within the specific context of the industry in order to determine what elements of service are considered relevant. One example is the creation of the libQUAL+ model, developed by Texas A&M in conjunction with the Association of Research Libraries (www.arl.org). It utilises the same methodology, but alters the 22 questions originally proposed within the SERVQUAL model (DeWitt, 2001).

Adding weighting measures to the SERVQUAL instrument further complicates a model that is already criticised by academics as an overly complicated measurement device (Hill and Allen, 2007). The model is often criticised because of its unwieldy nature. The fact that respondents have to answer the same set of questions twice can cause confusion and boredom. As a result, there is often a tendency for respondents to simply check 'highly important' for every element of the expectation questionnaire, without true consideration of their feelings towards it. Furthermore, the questioning method does not accommodate the relative value of service elements; therefore it does not allow for questions such as 'which is more important in service - 'a' or 'b'?

From an analysis of the literature it can therefore be seen that although the underpinning theory of the SERVQUAL model is persuasive, there are a number of faults that limit the reliability of the SERVQUAL instrument. The methodology section of this report will attempt to address these issues and create a modified SERVQUAL instrument that fully identifies the existence and extent of the service gap in University of Chester Seaborne library. As well as addressing the existence of a service gap, this report will also attempt to make recommendations regarding the way in which University of

Chester Seaborne library can improve its service performance. As such, it is pertinent to examine the literature in relation to how service quality may be improved. The review will begin by looking at general models of service delivery and improvement, and then turn to a brief overview of the way in which some authors believe service delivery methods can be implemented in a library setting.

2.4 Delivering/Improving Service Quality

The most modern approach to the deliverance of service can be found in the 'Total Quality Management' model. Jurow & Barnard (1993) identify that the model is particularly suitable for application in the context of library services. As such, the review will examine the general principle of this model, and also examine some of the specific issues for TQM in the context of libraries.

2.4.1 Total Quality Management

Kanji and Asher (1996) define total quality management as a view that states that all business activities comprise of 'processes'. Understanding each step within a process, and the way that processes interact and merge to become larger 'quality chains' is vital for a company in delivering service quality. Improvement of service quality comes from aligning processes with customer needs, trimming fat and wasted steps within a process, and adopting methods of continuous assessment and incremental improvement. These activities can be seen to relate to closing 'gaps 1 – 4', as identified in Parasuraman et al (1988) service gap model.

Figure 2.2 The TQM Model



Model taken from <http://www.tqe.com/tqm.html>

The authors identify that in order to achieve the five objectives above; a business must adopt four principles of activity. The first of these is the principle of 'delighting the customer'. This means aligning practices to assess and truly understand the expectations of the customer, and then using this information in order to innovate and produce service that meets and exceeds customer expectation. This first principle demonstrates the customer centric nature that businesses must adopt in order to deliver quality, and in this sense can be seen to directly link with the SERVQUAL model of expectation-perception. The second principle of total quality management relates to the ability management to 'manage by fact'. This refers to the understanding of processes through the analysis of what is actually happening within the business, not what is perceived to be happening. Therefore, if a business is to accord with TQM principles, it must implement accurate measurement systems that do not only analyse the outcomes of a process, but the efficacy of steps along the way, identifying where problems occur. The third principle ties in with the second principle, and requires people based management. TQM theory identifies that people are the central component of all processes (Kirst-Ashman and Hull, 2008). As a result they have the potential to contribute the most to processes, but also have the potential to disrupt these processes the most. As such, managing human activity is a vital component towards delivering high levels of service quality, and the TQM model proposes motivational techniques and teamwork as the central method of improvement in this area. The final principle of TQM is the principle of 'continuous improvement'. This involves looking at the four areas above, making constant assessments regarding their efficacy, and introducing incremental

improvements. The process then needs to be reassessed, and new improvements added. As such, all business processes should be viewed as cyclical rather than linear. By implementing these measures, proponents of the TQM model state that problems are prevented rather than solved (Beckford, 1998).

Despite the increasing prevalence of TQM in modern business thinking, there have been a number of criticisms of the model forwarded by various theorists. Al-Dabal (2001) argues that the attitude of incremental improvement is actually destructive to the process of innovation. He states that competitive advantage (and excellent service) are delivered through assessing need and then designing a system that delivers. TQM carries the risk that businesses will engage in continuous improvement on systems and processes that are inherently unsuited to the task at hand. They can be seen as a makeshift method of 'patching up' faulty processes. Al-Dabal also criticises the model for thinking small and losing sight of the overall business objective. He states that whilst there may be merit in understanding business activities as individual processes, it is vital to understand these in the context of the overall business objective.

2.5 The practical application of service quality management in libraries

Jurow & Barnard (1993) identify three ways in which TQM may be applicable in the library setting. Firstly, they state that it may help to break down departmental barriers. This can occur through the exposition of teamwork principles, and also through addressing the interlinking elements of individual department processes. The second benefit identified by the authors is the ability of TQM to help the library more closely identify both its internal and external customers. Finally, the authors identify that it can help to implement continuous improvement to the service.

Clack (1993) identifies that implementing TQM in libraries is more than a theoretical activity - it has been carried out by a number of major libraries across the world. He cites the example of the Harvard College Library which developed a new 'vision statement' in line with TQM principles. Oregon State University also hired external specialists to evaluate their performance in line with TQM principles. It was found that the library had been devoting resources to improving services and issues that were not perceived as critical by customers. Evaluation in line with TQM principles (i.e., an

examination of each library process, rather than merely the outcome) also identified that there was a significant shelving backlog, and that this was attributable to the fact that shelvers felt isolated. This isolation meant that shelvers could not understand their contribution to the overall objective, and lacked motivation. Improvements in process and people management were therefore made in order to develop shelving teams.

Sirkin (1993) identifies a number of measures that might be implemented as a result of TQM thinking. These include changing the hours of opening, changing return processes, improving signage, changing the layout, training staff and a variety of other measures. He does not suggest that these measures should be implemented in each and every library, but instead notes that they are concepts that may be introduced upon an assessment of customer need.

2.6 Conclusion

It has been clear from an evaluation of the literature that despite identified flaws in the SERVQUAL model, the underlying rationale provides a stable and sensible basis on which to base assessments of service quality. The customer is central in gaining an understanding of whether service quality is being delivered, but there is no easy answer when attempting to determine their needs. There is no objective set of standards that all customers expect when engaging with a service (Schwarz, 2002). Instead, their experience is subjective, and tied in with their expectations of these services. These expectations will relate not only to their expectations of the market as a whole (i.e. their expectation of libraries in general), but also their expectations of a particular library (i.e. University of Chester Seaborne library). Their perception will always be relative to their expectation, and service quality is found where these two elements are closely matched.

However, the literature review also identified that the SERVQUAL has a number of methodological faults that can yield inaccurate results regarding measurement of the service gap. These must therefore be accommodated and compensated for when implementing the model in practical assessments of service quality.

Having identified how service quality might be measured, the literature review turned to an identification of ways in which service quality might be improved. It focused on the

concept of total quality management, and identified that libraries must view their operations in terms of the processes that contribute to the end result. Total quality management is able to deliver service quality through ensuring that every stage that supports the end result is efficient and delivers a consistent, perfect outcome for the customer every time. As such, in order to generate recommendations for service improvement, this report will need to identify a) the expectations of the customers, and the areas in which perceptions are not matching these, and b) the underlying processes that contribute to service elements, and the areas in which these are deficient.

3.0 Methodology

3.1 Introduction

The methodology section outlines both the primary and secondary research methods that were utilised in the course of this study. It focuses much of its content on the way in which the measurement instrument was created.

3.2 Research Philosophy

The research conducted within the course of this dissertation takes the form of many different research approaches. The literature review is descriptive and analytical, but also moves towards a critical view of the existing 'expectation' based measurement model. The primary research aims to take a confirmatory approach to the existence of a service gap in University of Chester Seaborne library, but backs this up with findings that support an 'action' based research approach that can offer practical advice to the library with regard to the changes it can make, that will improve service quality. The review therefore does not adopt a single research philosophy, but instead adopts a number of approaches that aid in the furtherance of the research goals.

3.3 Research Strategy

3.3.1 Primary Research

Qualitative and Quantitative approaches

The main body of this dissertation bases itself upon primary research, conducted through the issuance of a modified SERVQUAL instrument. The questionnaire uses quantifiable answers, where individuals state their level of agreement using a numerical representation. However, these numbers are not used to assess the prevalence of a trend, but instead gain an understanding of the inherent 'quality' of the library. As such, the study uses what might generally be classed as quantitative methods, but it uses these to deliver a qualitative outcome. Cooper and Schindler (2003) identify that qualitative studies are usually beneficial in identifying the 'essential nature or character of something', whereas quantitative studies are useful for generating statistical figures regarding the occurrence of something. At first sight then, the proposed methodology may appear contrary to the aim of this study - since the aim can be classified as an attempt to identify the 'quality' of an individual institution rather than make comparisons regarding the prevalence of a phenomenon across a number of institutions. However, comparison is occurring in the sense that individual expectation is being compared with service perception. For this, a quantitative approach is required. In the context of SERVQUAL then, quantitative approaches can be used to develop conclusions regarding the nature of service quality.

When administering questionnaires, there is always a risk of bias influencing the outcome of the survey (Cox, 2002). In the context of this study, there are two identified risks of bias. The first is a risk that emanates subconsciously from the surveyor - since it may be the case that they approach people of a certain type (be this based on age, race, sex or appearance) simply because they feel more comfortable engaging with a particular group. The second risk of bias occurs on the part of the respondent. They may believe that the surveyor is acting on behalf of the library, and adjust their responses accordingly to flatter them - feeling uncomfortable with criticising the service directly.

In order to eliminate the risk of bias occurring in questionnaire responses, questionnaires are to be administered using impersonal methods - this means that the questionnaires will be passed to a number of lecturers, who will then distribute them to students in their lecture groups. These questionnaires will then be returned to the dissertation supervisor before analysis. Although it is acknowledged that a personal approach might increase the response rate, the risks of bias are deemed significant enough to justify an impersonal approach.

3.3.1.1 Sampling

Control of sampling is important in order to control the data that is collected and ensure that it is accurate. One thing that must be carefully controlled is the size of the data set. Large data sets are generally held to yield more accurate results, but they also present issues regarding their manageability. This manageability refers in part to the ability to accurately compare and analyse data, and also in reference to ease of collection. Given the resources available in this study, the data set will be kept relatively low - with a targeted response rate of 25.

The qualifications for participation in the study were fairly simple - they required the respondent to have had a least one trip to the library within the last three months. This was determined through the first question, and also through the fact that the questionnaires were being distributed within the academic setting to current students. The age and user purpose of the sample group was not targeted, but was noted in case there was an identifiable impact on research responses.

3.3.2 Secondary Research

The dissertation has also utilised secondary data. This has been used to inform the construction and analysis of the questionnaire, and also used to support proposed initiatives for service improvement. The main body of secondary research is found within the literature review, but is also found throughout the conclusions and recommendations in the report.

The search strategy for secondary data began with a review of relevant course literature - these formed the backbone of research. From these, key authors, concepts and words were used as a basis for the second arm of the search strategy. The University Library Database was searched using authors that had been identified as important within the context of the topic. Furthermore, key words such as 'library', 'service quality' and 'TQM' were used to identify further texts. The abstracts for the responses were read in order to determine relevance, and in some cases new terms were identified that could be 'fed' back into the search engine to yield further relevant results.

3.4 Questionnaire Design

It was identified within the literature review that specific SERVQUAL based models have already been developed for assessment of library service performance. This takes the form of libQUAL+ (www.libqual.org). This model is based upon empirical evidence regarding the elements that people regard as relevant to a library service experience, and as such the questions from this model will be used.

However, the libQUAL+ utilises the same methodology as the SERVQUAL model, and within the literature review it was identified that there are some deficiencies in this. The first central problem was that the SERVQUAL model questioned the expectations of a customer with regard to the general expectations of service within an industry. It was deemed that this does not accurately reflect the true nature of the expectation/perception model, and that the expectation questions need to reflect a customer's expectation of the specific experience as well as their expectation of service in general organisations within the industry. As such, questions have been asked in three separate ways. The first of these is phrased in the context of specific expectations (or anticipation) before entering University of Chester Seaborne library. They are phrased; *'Before I visited University of Chester Seaborne library, I expected...'*. This question therefore relates to what the user 'anticipates' their experience will be. The second set of questions relate to what the service user thinks the level of service *should* be, and is phrased *'I think it is important that University of Chester Seaborne library should...'*. This section measures expectations in the general sense - meaning not what users *anticipate*, but what they need/desire from their experience. The third set of questions relates to the actual

perception of the experience, as is phrased *When I visited the library...* '. The latter is designed to measure actual perception.

This represents a change from the existing libQUAL+ model, which measures minimum, expected and perceived levels. It is argued that measuring anticipated experience is more important than minimum because it more accurately corresponds with the concept of the service gap. It is argued that this modified version of the SERVQUAL/libQUAL+ model is most effective because it accommodates both expectation and anticipation of the experience, and places them in relation to perception. This is important, because although it is ideal to meet or exceed expectations (i.e. needs/desires), it is often 'enough' for organisations to exceed anticipations. Meeting anticipation is more significant than meeting minimum expectations. This method will therefore help the University of Chester Seaborne library to more accurately target its activities, bringing up areas that fall short of the anticipated experience before they target activities that fall short of the expected experience. Alternatively, it may be found that customers actually anticipate an experience above that of their expectations of the organisation - perhaps because the library has received high levels of 'hype' or used publicity that has heightened anticipation. This proposed model will help to identify if this is the case, and act accordingly.

However, because this has made the research instrument more manageable, the number of questions for each section has been reduced from the original 22. It is judged that the 15 questions included hit the appropriate level to retain respondent interest and ensure that response rates are kept high.

It might be argued that this modified method has made the questionnaire complex, and requires the respondent to understand subtle distinctions between the concept of 'anticipate', 'expect' and 'perceive'. However, it is believed that the target respondents are capable of understanding the technicalities of these distinctions due to their academic grounding, and it is further submitted that each term has been carefully explained in order to highlight the differences between the terms, and the factors that may impact the respondent's thinking when considering each term.

The second problem with the traditional methodology that underpins both SERVQUAL and libQUAL+ is the lack of comparative ability between components of service. It was identified that this often led to users picking 'very important' in regard to all service elements. The revised questionnaire therefore also incorporates comparative questions. Users are asked to rank a) how important the five relative areas of service are in relation to one another, and b) which service areas the University of Chester Seaborne library performs best and worst in.

All other questions use the Likert scale to judge the importance of various service components. It was decided that this Likert scale would comprise of six potential responses, because this forces the respondent to indicate some sort of preference either way.

3.5 Ethical Considerations

The top of the questionnaire informs the respondent of the way in which their data would be used, and they were given two contact emails at the top of the questionnaire. The first of these was to be used if the respondent had any further questions about the nature of the investigation. The second was an email address for the dissertation supervisor, who could be contacted if the respondent felt that the research was in any way invasive or unethical. The questionnaires were designed to be answered confidentially. This therefore precluded the data being used for any other purpose

4.0 Findings

4.1 Data Analysis

The beauty of the modified libQUAL+ instrument that has been developed is that analysis of the results can be undertaken in a very simple way. The response for each question was given as a number, with 1 indicating a high expectation that a service element would be delivered, and 6 indicating a low expectation that a service element would or should be present. The responses were then simply added up, for each three of the components of every question; anticipated experience, expected experience and actual experience. A low score indicated a high expectation that the service element

would, should or did exist at the library. A high score indicated the opposite – that a service element was either not anticipated, not important in a general library model, or not actually experienced. The gap in score between anticipation and experience, and between expectation and experience will give two different service gap scores. A small example from the data is provided below:

	Respondent 1	Respondent 2	Respondent 3	Respondent 4
<i>Before I visited</i>	1	2	1	1
<i>I think it is important</i>	1	3	1	3
<i>When I visited</i>	1	4	1	5

Service Score

- a) Before I visited 5
- b) I think it is important 8
- c) When I visited 11

The ‘anticipation’ service gap is determined by finding the gap between a) and c), and can be seen to be 6. The ‘expectation’ service gap can be determined by finding the gap between b) and c), which can be seen to be 3. This indicates that in the example above, the customers expected a higher level of service from libraries in general than they anticipated from this particular library. This can work in the libraries favour because it means it is easier to meet the anticipation of the customer. However, the gap between the anticipation score (a) and the expectation score (b) may be an indication that something is going wrong in terms of the public image that the library is presenting. If customers expect a lesser experience than their ‘ideal’ before they have even entered the library, there is a risk that they will defer to the competition before they have even experienced the library. The extra benefit of this altered model of service gap measurement is that it not only gives an indication of whether the organisation is failing to deliver adequate service quality, but also whether it is managing to market itself

effectively at present an *image* of service quality that meets the standards of other competitors.

4.2 Overall Service Quality

The score from every question is added together in order to generate overall scores for the anticipated experience, the expected experience and the actual experience. These were as follows:

Anticipated experience: 497

Expected experience: 458

Actual Experience: 668

This clearly indicates that the library is failing to meet either the standards expected of libraries in general, or the experience that was anticipated before entering the library. The gap is significant and indicates that the overall level of service quality is insufficient to satisfy the desires and needs of the customers. As highlighted before, the model also highlights that this service gap is perhaps resulting in a negative image being publicised to new visitors. This is reflected in the disparity between the anticipated experience of Seaborne library and the experience that is expected from libraries in general.

The following sections aim to identify which particular areas of service provision are particularly deficient. It should be noted that there was no one area in which the University of Chester Seaborne library managed to meet the anticipated or expected service level – they displayed a significant negative service gap in every area of service. However, there were some areas in which this gap was more extreme than in others. The individual questions can be grouped together into general areas of service provision, as was done on the original libQUAL+ model. This will be done here for a

general overview of each area, and specific comments will be made on some of the individual specific components that have severely affected a given area.

However, it must be mentioned now that the grouping of specific service elements into overarching service areas is not definitive (Morpace International, 1999). Take the example of the ‘product’ service area. A number of questions related to the product of the library. This means ‘what’ is being delivered, and not ‘how’ it is being delivered. In a restaurant, these products would not just be the food but also the drink. Similarly, in the library the product must be seen as a whole, and is by no means limited only to books (though these do constitute the central product). Of course, there are difficulties in determining what constitutes ‘the product’ and what constitutes the way in which it is delivered. For instance, a question contained within the instrument is ‘I expect there will be quiet spaces to work in’. Does this question relate to a product that the library offers, or does it relate to the setting in which that product is delivered? The restaurant analogy is much more clear cut – if one phrases the question ‘I expect the restaurant to provide comfortable tables and chairs’, this would clearly relate to the environment that aids the delivery of the central product. But of course, this assumes that food *is* the central component or product of a restaurant. If the restaurant was themed, then perhaps the environment (including the chairs and tables) becomes part of the product and not merely the way in which the product is delivered.

It is acknowledged that these problems are in some ways self created by the creation of library specific categories. For instance, the traditional SERVQUAL division of five service areas would not differentiate the product delivered from the environment it was delivered in; instead these would fall under the category of ‘tangibles’ However, it is argued here that this distinction is insufficient for libraries in truly understanding which areas are underperforming – hence a division between products and environment. What is essentially being stated though is that the groupings of service components are not definitive, and certain specific service elements could arguably be divided differently among groups. None-the-less, the groupings have been decided according to the classification that most accurately reflects the way that people use the library (i.e. it is submitted that customers visit the library specifically to find quiet space to work, and therefore perceive ‘quiet space’ as a product, rather than the environment in which the product is delivered.)

4.3 Specific areas of service quality

4.3.1 *The product*

The following questions and results pertained to the measurement of satisfaction with the products offered by the library, rather than the way in which the products are delivered.

Availability of Required Books

Anticipated experience:	38	Anticipation Gap: 16
Expected experience:	38	Expectation Gap: 16
Actual Experience:	64	

Availability of electronic resources

Anticipated experience:	42	Anticipation Gap: 20
Expected experience:	35	Expectation Gap: 27
Actual Experience:	62	

Availability of quiet working spaces

Anticipated experience:	52	Anticipation Gap: 14
Expected experience:	44	Expectation Gap: 22
Actual Experience:	66	

*Overall gap in the product area (*see appendix three for calculation of this value)*

Anticipation Gap:	16.6
Expectation Gap:	21.6

These results show a clear gap between both anticipation and actual experience, and also expectation and actual experience. This indicates that the library is failing to deliver the products that are expected of it, and as such this negatively affects the perception of service quality. The area that affects the overall score most detrimentally is the provision of electronic resources. Anticipation of this area is already well below the expectation in this area, meaning that even before people have visited the library, something has signalled to them that the facility will be unable to meet their electronic needs – the library needs to identify why customers believe they will not find their electronic needs met before they visit, in order that the library can alter the customer's anticipation of the service. The results therefore give a clear indication that the library is underperforming in the delivery of products – both in its ability to project an image of having a suitable range of products, and its ability to actually deliver these products.

4.3.2 Convenience

Opening Hours

Anticipated experience:	37	Anticipation Gap: 20
Expected experience:	55	Expectation Gap: 2
Actual Experience:	57	

Obtaining Specialist Books

Anticipated experience:	57	Anticipation Gap: 15
Expected experience:	48	Expectation Gap: 24
Actual Experience:	72	

Locating Materials within the library

Anticipated experience:	50	Anticipation Gap: 22
Expected experience:	43	Expectation Gap: 14
Actual Experience:	77	

*Overall gap in the convenience area (*see appendix three for calculation of this value)*

Anticipation Gap	19
Expectation Gap	13.3

Convenience is one of the few areas in which the library has managed to foster an anticipation of the experience in University of Chester Seaborne library that exceeds expectations of the experience in a general library setting. This is evident with regard to the anticipation of how easy it would be to find resources, but is most noticeable with relation to the ‘opening hours’ score. This means that somehow the library has fostered an image of having extremely convenient opening hours – more convenient than a person would expect from a ‘generic’ library. However, as can be seen from such a high experience score, the library is failing to actually deliver this convenience when customers come to use the facility. Arguably, the library is performing ‘adequately’ in this area because it is close on matching the expectation of opening hours for libraries in general, but because customers are anticipating this library to perform better than most in this area, it ultimately disappoints. It is submitted that this low anticipation score (why indicates a high anticipation of convenience) may be born of the fact that the library is part of an academic institution. There may be a general perception that libraries that cater exclusively for students should operate much longer hours (in order to accommodate late night cramming).

It should be pointed out that this area clearly demonstrates the superiority of the modified libQUAL+ model that has been used here. Under a traditional libQUAL model, only the expectation of the experience would have been measured, and in the context of opening hours it would have found the University of Chester Seaborne library to be performing satisfactorily. However, the use of anticipation scores clearly shows that this is not the reality. Therefore, anticipation scores are beneficial for two reasons; firstly they provide a more accurate measurement of the service gap, and secondly they allow for a service to understand the gap between the pre-use perceptions of its service quality versus that of its competitors.

Overall, due the fact that the library has fostered higher anticipation of the experience in this area, its anticipation service gap is more significant than in other areas. Its expectation gap is not as severe, indicating that the library does not perform as well as customers believe it will, but may be performing in line with other libraries. Whilst this may be a more positive result than that yielded in other service areas, the existence of a service gap on both plains (expectation and anticipation) still indicates that the library is underperforming in terms of convenience related service quality.

4.3.3 Efficiency

The efficient processing of stack requests

Anticipated experience:	59	Anticipation Gap: 12
Expected experience:	51	Expectation Gap: 20
Actual Experience:	71	

The knowledge of staff

Anticipated experience:	43	Anticipation Gap: 5
Expected experience:	39	Expectation Gap: 9
Actual Experience:	48	

The ability to resolve customer issues

Anticipated experience:	43	Anticipation Gap: 15
Expected experience:	52	Expectation Gap: 6
Actual Experience:	58	

*Overall gap in the efficiency area (*see appendix three for calculation of this value)*

Anticipation Gap 10.6

Expectation Gap 11.6

This area shows an improved gap rating both in relation to anticipation and expectation. This is mainly attributable to lower actual experience scores, meaning that expectation and anticipation are broadly the same across the board of service areas, but the library is actually performing better in the efficiency area. What is notable is that the two specific elements that perform most adequately are those that relate to actual contact with staff members (resolving customer issues and staff knowledge). In both these areas, the library received lower than average ‘experience’ scores, indicating that they are performing well. This indicates that any deficiencies that are occurring in service quality are not occurring because the staff are rude or ill-suited to the job, but because they are not supported by suitable processes. This will become a particularly significant issue when addressing how University of Chester Seaborne library can improve the service quality offered within their operations.

4.3.4 The environment

How clean, attractive and conducive to study the library was

Anticipated experience:	43	Anticipation Gap: 9
Expected experience:	35	Expectation Gap: 17
Actual Experience:	52	

This service area clearly shows that customers expect libraries to generally be well maintained and attractive, but something has given them the impression that the University of Chester Seaborne library will fail to live up to this standard. This is reflected in the fact that the anticipation score is much closer to the experience score – customers already anticipated a bad experience and this is exactly what the library delivered. This opinion may well have been formed by opinions regarding the external appearance of the facility.

4.3.5 Staff attitude

Anticipated experience:	33	Anticipation Gap: 8
Expected experience:	38	Expectation Gap: 3
Actual Experience:	41	

This area shows a relatively small service gap in terms of both anticipation and expectation. Most notably, the reason for a slightly larger anticipation gap is because customers anticipated that service would be *better* in University of Chester Seaborne library than in most other libraries. This goes against a trend indicated in the majority of other areas, where customers anticipated worse service in University of Chester Seaborne library than in most other libraries. This indicates that the University of Chester Seaborne library has done something to promote an image of having friendly staff (**see appendix four*) (also attributable to the community feel of a campus university). Furthermore, the library is coming closest to meeting the desired level of service quality in this area, which is excellent. This improved score provides further evidence for the proposition (made in section 4.3.3) that it is the process related elements of service that let the library down, and not the human elements.

4.4 Relative performance of service areas

It is clear from a comparison of the overall scores for each area that although the library is technically underperforming in most of the areas, it is best performing in the staff attitude area, whilst it is significantly underperforming in relation to ‘product’.

Of course, the reality of the academic world means that there are only limited funds to be spent on improving deficient service quality areas. It is submitted here that these

should not necessarily be spent on the area that is currently displaying the greatest service gap. Instead, it is important to judge how important customers perceive each element of service, and then efforts should be made to ensure that areas of service are improved in order to correspond with this perceived importance.

The questionnaire identified that customers perceived the following order to represent the relative level of importance of each service area:

The products and things offered by the service

Reliability of the service

The responsiveness of the staff and service process

The assurance offered by the service experience

The empathy of staff

The customers perceived that the University of Chester Seaborne library managed to deliver these service elements to varying levels of success, with the following order showing the most to the least successful area of service delivery:

The responsiveness of the staff and service process

Reliability of the service

The products and things offered by the service

The assurance offered by the service experience

The empathy of staff

It can be seen from this that the Seaborne library is mostly matching their focus to that which is expected by customers, with the exception that they are ‘over delivering’ in the area of responsiveness, and under-delivering in terms of the products they are offering. Indeed, although products is only cited as the third ‘worst’ area being delivered on, the previous questions identified it as University of Chester Seaborne library’s weakest area, so it is clear that this is where the service improvement needs to be mainly focussed.

4.5 Indications

4.5.1 *What the results indicate about the suitability of the modified measurement tool*

The results clearly indicate that there is a difference between the anticipation based service gap and the expectation based service gap. Customers who have already ‘braced’ themselves for a negative experience will be less disappointed by low levels of service than those who are measuring against some ‘expectation norm’ that applies to all libraries. Customers will judge service quality both on the basis of ‘it wasn’t as bad as I thought it would be’ and ‘it wasn’t as good as that place up the road’, but it is argued here that the first statement will be the most important comparison basis that a customer uses, and therefore is the most accurate measure of service quality. Expectation only has real relevance in assessing whether a customer will choose to visit a facility in the first place (Johnston and Clark, 2008). If there is a wide gap between the anticipation of a specific facility and the expectations of facilities in general, then the customer may just choose to go to another facility where their anticipation of that place matches their expectation of the level of service that should be delivered in the industry generally. As such, the gap between expectation and anticipation could be termed the ‘marketing gap’, whilst the gap between anticipation and experience is the ‘service gap’.

The identification of the ‘marketing gap’ shows the continued importance of expectation measurement. Just because anticipation is the key element of service quality, this does not mean that companies or organisations should work to lower the anticipation of customers by presenting a more ‘dulled’ image of themselves. In this way, it is submitted that Grönroos’s (2007) proposition that the service gap can be lowered by managing expectations is incorrect. Although this would obviously lower the gap between anticipation and experience (and create a lower service gap), to do this risks customers choosing other facilities before they have even walked in the door. Therefore, the main aim of an organisation must be to raise anticipation levels to a place just above that of expectation levels (create a negligible or slightly positive marketing gap), and then deliver an even high level of experience (thereby creating a significantly positive service gap).

4.5.2 *What the results say about the library*

The results indicate a number of things. These will each be outlined in turn.

- Customers generally expect less from the University of Chester Seaborne library than they do from libraries in general (Indicated by higher anticipation scores than expectation scores)
- In every field, the library is failing to meet or exceed either the anticipation or expectation of the experience, giving a clear indication that service quality within the library is considerably lacking.
- This is most notable in the product area.
- There is a trend for experience scores to be significantly lower (therefore, better) in areas that relate to direct staff contact. This indicates that the main failing of the library is in providing supporting services that help staff to deliver customer service effectively.

5.0 Recommendations

5.1 Recommendations for University of Chester Seaborne Library

The findings section of this dissertation identified two central areas that need to be fully addressed. These were the fact that the ‘product’ area of service quality is the most deficient area within the library, and also the assertion that general service quality deficiencies are attributable to problems with process and not people. Each of these will be addressed in turn.

5.1.1 Improving the products offered

Customers displayed dissatisfaction in most areas of product offerings, but this was most pronounced with regards to the electronic access granted by the library. In order to improve the perception of service quality, the library will have to improve its online content. This may involve creating a more user friendly online catalogue, subscribing to

a wider range of online journals, or implementing an online database that contains digitised copies of all hard copy books (similar to the Google books system). Of course, these different options will vary dramatically in the time, money and resources required to implement them. The library must therefore engage in a targeted approach that yields the maximum improvement for the minimum funds. Understanding what will yield maximum improvement can only be achieved by engaging in a more targeted and in-depth form of customer research. This may be done through further questionnaires, or perhaps through the conduction of a focus group.

The deficiency of suitable working areas was also identified through the questionnaire. Spaces to work are rightly considered a 'product' here because they are a destination reason for visiting, rather than merely a supporting element. Johnson (2009) identifies that many modern libraries need to diversify the range of spaces they offer; this might include introducing coffee shops and comfy areas as well as the more traditional desk spaces. Johnson further identifies that the general services offered by the library may also need to diversify – for instance, the library already offers some additional services, including copying and movie rental, but this could be extended to include computerised adult learning classes, book groups etc. Although the issue of anticipated, expected and actual delivered services was not addressed within the dissertation, it is recommended that it is an area that the library should conduct research within to identify how they can best meet the service needs, anticipations and expectations of the customer.

5.1.2 Improving the processes that support frontline action

Jurow and Bernard (1993) identify that often 'the librarian who provides services directly to the users is a 'customer' of other staff members who work behind the scene, because he or she is dependant on the services of those other staff'. This relates to the view that service quality is not determined by the last point of contact with the customer, but instead by the entire chain of processes that combine to deliver a particular outcome. As was identified in the literature review, this forms the central component of the TQM model of service improvement.

It can be seen that the library already uses a number of automated processes, which suggests that they have already assessed their operations to some extent to identify the steps that make up each process. These have been 'streamlined' and automated in order

to maximise the efficiency and effectiveness of these operations (**see appendix Four*). However, given that there are still concerns with the way in which these services are delivered (as indicated by the questionnaire findings), this indicates that the processes are not yet operating at full effectiveness. This indicates that although the library may be implanting process orientated thinking towards operations, in line with TQM principles, they are not implementing this thinking in a cyclical way that allows for continuous improvement. One area in which this is most apparent is in the user interface of the online catalogue. The library have not engaged in continuous assessment and refinement in order to deliver continuous improvement; instead, they might have conducted a single process analysis, made general 'upgrades' and then remained complacent with the efficacy of the new system. This has resulted in dissatisfaction in the overall level of service offered.

It is therefore recommended that the library conduct small but frequent analysis of each process and identify the small ways in which these can be improved – these small improvements can be as valuable in improving service quality as major process overhauls. In line with TQM principles, this analysis needs to be conducted on a cyclical basis in order to effect continuous improvement in the system (Jones and Merricks, 1994).

5.2 Recommendations for improving the study

In relation to giving recommendations regarding how service quality could be improved, the dissertation would have benefited from a more comprehensive understanding of the processes that University of Chester Seaborne library currently utilises. It was not possible to state what the library should be doing in terms of TQM principles because it was not possible to fully identify exactly what the library was or was not doing at the time. The ideal way to have achieved this would have been through a long-term and thorough assessment of library operations. However, to do this would have been outside of the scope of this dissertation since the exercise would have only been valuable if carried out over an extended period of time. Even if the assessment could have been effectively carried out with the allowed period, there would have still been significant issues regarding the impact on the library. It could be unnecessarily

disruptive to operations if the staff had to accommodate an assessment over an extended period of time. Furthermore, the assessment of operations would only be of value if it were possible to gain full disclosure of all relevant information, but a lot of this information is either sensitive, or would affect confidentiality (for instance, financial records for the former, book access records of customers for the latter). What this indicates is that although conducting an assessment may not have been within the scope of an academic study, there could be significant value in the library conducting its own internal assessment of processes.

6.0 Conclusion

The central assertion of this dissertation has been that service quality is best measured by ascertaining the gap between customer expectations and customer perceptions, in line with the model proposed by Parasuraman et al (1991). However, this model was adapted because ‘expectation’ was found to be an ambiguous term, which could either refer to the expectation of a specific experience within an industry, or expectations of general service provision within the whole of the industry. It was identified that often these two different meanings could yield wildly different results regarding what the customer ‘expected’, and as such could yield inaccurate service quality measurement results. As a result, the dissertation aimed to distinguish between ‘anticipated experience’ – referring to the expectation in relation to the specific experience that the customer is about to encounter, and ‘expected experience’, which relates to the standard of experience that the customer expects from the industry in general.

This distinction was used to create a measurement instrument that could ascertain both the ‘anticipated service gap’ and the ‘expected service gap’. It was also able to identify the existence of a ‘marketing gap’ by examining the difference in anticipation and expectation score. As such, the model was forwarded as being a much more effective method of gaining a true snapshot of performance.

The model was implemented in order to determine whether a service gap exists in University of Chester Seaborne library. It covered a number of service areas, looking at

specific service elements within each. The instrument identified that University of Chester Seaborne library is failing to match experience with anticipation or expectation in every single field. This indicates that its service quality is severely lacking. A closer examination of the results indicated that this was particular due to a lack of sufficiency in the services offered, and also because the underlying processes that supported staff action were under-developed. It was therefore forwarded that the library would best be able to improve its levels of quality by implementing a TQM approach, the principles of which were addressed in the literature review.

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Appendices

Appendix 1 - The SERVQUAL instrument

(taken from www.biomedcentral.com)

Figure 1: The SERVQUAL Instrument

DIRECTIONS: This survey deals with your opinions of _____ services. Please show the extent to which you think firms offering _____ services should possess the features described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that these firms should possess a feature, circle the number 7. If you strongly disagree that these firms should possess a feature, circle 1. If your feelings are not strong, circle one of the numbers in the middle. There are no right or wrong answers – all we are interested in is a number that best shows your expectations about the firms offering _____ services.

- E1. They should have up-to-date equipment.
- E2. Their physical facilities should be visually appealing.
- E3. Their employees should be well dressed and appear neat.
- E4. The appearance of the physical facilities of these firms should be in keeping with the type of services provided.
- E5. When these firms promise to do something by a certain time, they should do so.
- E6. When customers have problems, these firms should be sympathetic and reassuring.
- E7. These firms should be dependable
- E8. They should provide their services at the time they promise to do so.
- E9. They should keep their records accurately.

- E10. They shouldn't be expected to tell customers exactly when services will be performed.
- E11. It is not realistic for customers to expect prompt service from employees of these firms.
- E12. Their employees don't always have to be willing to help customers.
- E13. It is okay if they are too busy to respond to customer requests promptly.
- E14. Customers should be able to trust employees of these firms.
- E15. Customers should be able to feel safe in their transactions with these firms' employees.
- E16. Their employees should be polite.
- E17. Their employees should get adequate support from these firms to do their jobs well.
- E18. These firms should not be expected to give customers individual attention.
- E19. Employees of these firms cannot be expected to give customers personal attention.
- E20. It is unrealistic to expect employees to know that the needs of their customers are.
- E21. It is unrealistic to expect these firms to have their customers' best interests at heart.
- E22. They shouldn't be expected to have operating hours convenient to all their customers.

DIRECTIONS: The following set of statements relate to your feelings about XYZ. For each statement, please show the extent to which you believe XYZ has the feature described by the statement. Once again, circling a 7 means that you strongly agree that XYZ has that feature, and circling a 1 means that you strongly disagree. You may circle

any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers – all we are interested in is a number that best shows your perceptions about XYZ.

- P1. XYZ has up-to-date equipment.
- P2. XYZ's physical facilities are visually appealing.
- P3. XYZ's employees are well dressed and appear neat
- P4. The appearance of the physical facilities of XYZ is in keeping with the type of services provided.
- P5. When XYZ promises to do something by a certain time, it does so.
- P6. When you have problems, XYZ is sympathetic and reassuring.
- P7. XYZ is dependable
- P8. XYZ provides its services at the time it promises to do so.
- P9. XYZ keeps its records accurately.
- P10. XYZ does not tell customers exactly when services will be performed.
- P11. You do not receive prompt service from XYZ's employees
- P12. Employees of XYZ are not always willing to help customers.
- P13. Employees of XYZ are too busy to respond to customer requests promptly.
- P14. You can trust employees of XYZ.
- P15. You feel safe in your transactions with XYZ's employees.
- P16. Employees of XYZ are polite.
- P17. Employees get adequate support from XYZ to do their jobs well.
- P18. XYZ does not give you individual attention.
- P19. Employees of XYZ do not give you personal attention.

P20. Employees of XYZ do not know what your needs are.

P21. XYZ does not have your best interests at heart.

P22. XYZ does not have operating hours convenient to all their customers.

Appendix 2 – The modified instrument used to conduct research for this dissertation

Service Quality in University of Chester Seaborne Library

This questionnaire is designed to assess the quality of service that you receive in University of Chester Seaborne library. It is a confidential questionnaire, and your responses will only be used to identify areas where the library is not fulfilling your needs or expectations, and to help form potential solutions that will improve the quality of future library provision. It will not be possible to personally identify you from your responses. The data is being used within the context of an academic study, and will not be used for any other purpose. The data is not being collected by the library and individual responses will not be passed to the library, but it may be the case that general conclusions resulting from the data will be passed on to help improve future service.

If you would like to know more about this study, please email:
0816818@chester.ac.uk

If you have any concerns about this study, please email: -
g.rajkhowa@chester.ac.uk

The questionnaire works by asking about three different feelings towards service in the library. These relate to your *anticipation* of the experience, what you believe the experience *should* be like, and what the *actual* experience was like. When answering questions about anticipation, you should think back to before you first visited the library, and indicate what you thought you might experience (this might be based on reputation, a friend's advice, marketing or just a 'gut feeling'). When answering the second question in each set about what you thought service *should* be like, you should think about what libraries should provide to meet your needs or desires, with consideration of the

resources available to them. The final question in each set asks you to indicate how you *actually* felt about the experience once you had encountered it. If you have any questions about how to complete the survey, please do not hesitate to contact me on the email address above.

Thank you for taking the time to help.

Please score each statement with a 1-6 score, based on the scale below:

1 = Strongly agree

2 = Agree

3 = Somewhat Agree

4 = Somewhat disagree

5 = Disagree

6 = Strongly Disagree

Question 1 Have you used the library within the last three months? **YES**
NO

Question 2 Please indicate your user group:

Undergraduate Graduate Faculty Member Library Staff Staff
Other

Question 3

Before I visited University of Chester Seaborne library, I expected: my required books to be easy to find without asking.

I think it is important that University of Chester Seaborne library should: Make it easy to find books without asking

When I visited the library: I found the books easy to find without asking

Question 4

Before I visited University of Chester Seaborne library, I expected: That there would be quiet spaces to work in

I think it is important that University of Chester Seaborne library should: Have quiet spaces to work in.

When I visited the library: I was able to find quiet spaces to work in.

Question 5

Before I visited University of Chester Seaborne library, I expected: That the library would have the books and resources I needed

I think it is important that University of Chester Seaborne library should: Have the books and resources that I need

When I visited the library: I was able to find the books and resources that I need

Question 6

Before I visited University of Chester Seaborne library, I expected: That it would be simple to request special books

I think it is important that University of Chester Seaborne library should: have a service that makes it simple to request special books

When I visited the library: I found it easy to request special books

Question 7

Before I visited University of Chester Seaborne library, I expected: That specially requested books would be quickly delivered

I think it is important that University of Chester Seaborne library should: deliver specially requested books quickly

When I visited the library: I found that specially requested books were delivered quickly

Question 8

Before I visited University of Chester Seaborne library, I expected: That it would have convenient opening hours

I think it is important that University of Chester Seaborne library should: Have convenient opening hours

When I visited the library: I found it had convenient opening hours

Question 9

Before I visited University of Chester Seaborne library, I expected: Staff would have knowledge that could help me

I think it is important that University of Chester Seaborne library should: Have staff that have knowledge to help me

When I visited the library: I found that Staff did have the knowledge to help me

Question 10

Before I visited University of Chester Seaborne library, I expected: Staff would always be polite

I think it is important that University of Chester Seaborne library should: Have Staff that are always polite

When I visited the library: I found that Staff were always polite to me

Question 11

Before I visited University of Chester Seaborne library, I expected: that it would be clean, attractive and encourage study

I think it is important that University of Chester Seaborne library should: be clean, attractive and encourage study

When I visited the library: I found that it was clean, attractive and encouraged study

Question 12

Before I visited University of Chester Seaborne library, I expected: that it would have good electronic resources

I think it is important that University of Chester Seaborne library should: have good electronic resources

When I visited the library: I found that it had good electronic resources

Question 13

Before I visited University of Chester Seaborne library, I expected: that my problems would be dealt with well

I think it is important that University of Chester Seaborne library should: deal with customer problems well

When I visited the library: I found that my problems were dealt with well

Question 14

Please rank these service elements in terms of their importance to you when visiting the library (1 = very important, 5 = not important).

Reliability of the service

The assurance offered by the staff and service experience

The empathy of staff

The responsiveness of the staff and service process

The products and things offered by the service

Question 15

Please rank these service elements according to how well you think University of Chester Seaborne library delivers them (1 = this is University of Chester Seaborne Library's strongest area of service, 5 = this is University of Chester Seaborne Library's weakest area of service)

Reliability of the service

The assurance offered by the staff and service experience

The empathy of staff

The responsiveness of the staff and service process

The products and things offered by the service

Thank you again for taking the time to complete this questionnaire. Have a good day!

Appendix 3

This value represents the average anticipation and expectation score within the service area. It is calculated by taking the anticipation and expectation gap score from each individual question within the service area, adding these values together and dividing by the number of questions within the service area.

Appendix 4

Methods of monitoring “the happiness of students” with the library service provided within the Seaborne Library, University of Chester.

Subject Level

Departmental Staff- Student Liaison meetings

These are attended by members of the library subject team.

A section of each meeting is devoted to covering any Learning and Information Services issues or suggestions which arise.

The minutes and responses from the meeting are displayed on student notice boards. If necessary we keep members of academic staff within the Faculty of Business updated with how issues are resolved e.g. changing the loan period of books in heavy demand.

Faculty Board of Studies Meetings.

Subject Librarians / members of the subject teams participate in these meetings throughout the academic year.

HelpDesk, Subject Librarian and Team meetings.

Subject Librarians / members of the subject teams participate in these meetings throughout the academic year.

Other forms of communication:

Subject team members receive e-mails and telephone call from students, academic and departmental staff either directly or via the HelpDesk.

We receive book and journal requests and reading lists from academic staff.

We liaise with our Departmental library representatives

Library Management Systems – Millennium.

We can create lists to monitor book stock use etc.,

We use e-mailed monthly “Purchase alerts” so that subject teams can decide whether we need to order more copies of books in heavy demand.

We receive book suggestions from students submitted via the library catalogue.

We send out reminders to renew library books and overdue notices by e-mail.

User Education sessions.

We analyse and reflect on feedback received from students attending these sessions.

Seaborne Library Staff.

Roaming

Members of library staff operate a regular “Roaming” service where assistance is offered to students throughout the library with any queries they have. This has proved a very useful method of helping students to find books and information.

HelpDesk

Provides a frontline information service to students and academic staff. “Supportworks” software is used to log calls and queries and to distribute tasks to members of staff.

University of Chester Committee Meetings:

Student Services Committee

Attended by Brian Fitzpatrick Director of LIS, Angela Walsh, Deputy Director LIS and student representatives

LIS Forum

Attended by members of LIS Senior Management including Brian Fitzpatrick, Director of LIS and Departmental library representatives.

Students Union

LIS have good links with the Students Union. The SU often represent students’ views about LIS.

Research Committee

Attended by Angela Walsh, Deputy Director LIS and student representatives.

Teaching and Learning Committee

Attended by Director of LIS

Suggestions System

Users can email any suggestions or recommendations to us.

Information from all these sources is used to continually monitor and improve the library service offered to our customers.

Kind Regards,

Judith Brown

Business and Management Librarian
Learning and Information Services
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Tel. 01244 513309

November 2009